

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	13	("20020007840" "20030019426" "518 5058" "6178972" "6194326" "6220935 " "6227212" "6290777" "6387190" "64 09576" "6416586" "6419757" "642314 7").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 10:13
S11	7413	134/1,1.1,2,3.ccls.	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 10:13
S12	94	S11 and (clean\$4 or etch\$4 or treat\$4) and (substrate or semiconductor or wafer) and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H. subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) same ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO. sub.n" or "H.sub.xSO.sub.n" or "H.sub. nSO.sub.x") same ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub. 2" or "H.sub.xO.sub.x" or "H.sub.nO. sub.n" or "H.sub.xO.sub.n" or "H.sub. nO.sub.x")) same ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/08 09:30
S13	60	S12 and (spin\$4 or rotat\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 11:29
S14	49	S13 and (aluminum or (Al OR Al2 or Alsub2 or "Al.subx" or "Al.subn" or "Al. sub.2" or "Al.sub.x" or "Al.sub.n"))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 12:38
S15	54	S11 and (clean\$4 or etch\$4 or treat\$4) and (substrate or semiconductor or wafer) and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H. subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) with ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO. sub.n" or "H.sub.xSO.sub.n" or "H.sub. nSO.sub.x") with ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub. 2" or "H.sub.xO.sub.x" or "H.sub.nO. sub.n" or "H.sub.xO.sub.n" or "H.sub. nO.sub.x")) with ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/08 09:46
S16	36	S15 and (spin\$4 or rotat\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 11:29

## EAST Search History

S17	28	S16 and (aluminum or (Al OR Al2 or Alsub2 or "Al.subx" or "Al.subn" or "Al.sub.2" or "Al.sub.x" or "Al.sub.n"))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 11:55
S18	22885	(clean\$4 or etch\$4 or treat\$4) and (substrate or wafer or semiconductor) and (aluminum or (Al OR Al2 or Alsub2 or "Al.subx" or "Al.subn" or "Al.sub.2" or "Al.sub.x" or "Al.sub.n")) and di\$1electric and metal and insulat\$4 and conduct\$4 and ((multi near3 layer) or multilayer)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/08 09:46
S19	49	S18 and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H.subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) same ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO.sub.n" or "H.sub.xSO.sub.n" or "H.sub.nSO.sub.x") same ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub.2" or "H.sub.xO.sub.x" or "H.sub.nO.sub.n" or "H.sub.xO.sub.n" or "H.sub.nO.sub.x")) same ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 12:41
S20	23	S18 and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H.subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) with ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO.sub.n" or "H.sub.xSO.sub.n" or "H.sub.nSO.sub.x") with ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub.2" or "H.sub.xO.sub.x" or "H.sub.nO.sub.n" or "H.sub.xO.sub.n" or "H.sub.nO.sub.x")) with ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 13:14
S21	17	S20 and (spin\$4 or rotat\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/06 13:17

## EAST Search History

S22	3	(clean\$4 or etch\$4 or treat\$4) and (substrate or wafer or semiconductor) and (aluminum or (Al OR Al2 or Alsub2 or "Al.subx" or "Al.subn" or "Al.sub.2" or "Al.sub.x" or "Al.sub.n")) and pattern and di\$1electric and metal and insulat\$4 and conduct\$4 and ((multi near3 layer) or multilayer) and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H.subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) near6 ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO.sub.n" or "H.sub.xSO.sub.n" or "H.sub.nSO.sub.x") near6 ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub.2" or "H.sub.xO.sub.x" or "H.sub.nO.sub.n" or "H.sub.xO.sub.n" or "H.sub.nO.sub.x")) near6 ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 13:38
S23	2	(clean\$4 or etch\$4 or treat\$4) and (substrate or wafer or semiconductor) and (aluminum) and pattern and di\$1electric and metal and insulat\$4 and conduct\$4 and ((multi near3 layer) or multilayer) and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H.subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) near6 ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO.sub.n" or "H.sub.xSO.sub.n" or "H.sub.nSO.sub.x") near6 ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub.2" or "H.sub.xO.sub.x" or "H.sub.nO.sub.n" or "H.sub.xO.sub.n" or "H.sub.nO.sub.x")) near6 ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 16:21
S24	7041	(clean\$4 or etch\$4 or treat\$4) and (substrate or wafer or semiconductor) and (aluminum) and pattern and di\$1electric and metal and insulat\$4 and conduct\$4 and ((multi near3 layer) or multilayer) and (rotat\$4 or spin\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 13:39

## EAST Search History

S25	27	S24 and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H.subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) same ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO.sub.n" or "H.sub.xSO.sub.n" or "H.sub.nSO.sub.x") same ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub.2" or "H.sub.xO.sub.x" or "H.sub.nO.sub.n" or "H.sub.xO.sub.n" or "H.sub.nO.sub.x")) same ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 13:52
S26	31398	(clean\$4 or etch\$4) and (substrate or semiconductor or wafer) and (acid same (cool\$4 or chill or low) same temperature)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 13:54
S27	14841	S26 and (spin\$4 or rotat\$4)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 13:56
S28	8925	S27 and aluminum	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 13:56
S29	1112	S28 and pattern and di\$1electric and metal and insulat\$4 and conduct\$4	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 13:56
S30	5	S29 and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H.subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) near6 ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO.sub.n" or "H.sub.xSO.sub.n" or "H.sub.nSO.sub.x") near6 ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub.2" or "H.sub.xO.sub.x" or "H.sub.nO.sub.n" or "H.sub.xO.sub.n" or "H.sub.nO.sub.x")) near6 ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/07 14:13
S31	1	("4885106").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/11/07 14:20
S32	1	("6562146").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/11/07 14:20
S35	3815	(clean\$4) and (substrate or semiconductor or wafer) and (rotat\$4 or spin\$4) and (acid same water same peroxide)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/08 09:29

## EAST Search History

S36	298	S35 and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H.subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) same ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO.sub.n" or "H.sub.xSO.sub.n" or "H.sub.nSO.sub.x") same ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub.2" or "H.sub.xO.sub.x" or "H.sub.nO.sub.n" or "H.sub.xO.sub.n" or "H.sub.nO.sub.x")) same ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/08 09:54
S37	142	S36 and aluminum	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/08 09:37
S38	9	S37 and di\$1electric and metal and insulat\$4 and conduct\$4 and ((multi near3 layer) or multilayer)	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/08 09:53
S39	1	("6615854").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/11/08 09:54
S40	1	S39 and ((water or aqueous or H2O or (H2O or HxO or HnO or "H.sub2O" or "H.subxO" or "H.subnO" or "H.sub.2.O" or "H.sub.x.O" or "H.sub.n.O")) same ((sulfuric adj acid) or H2SO4 or "H.sub.2SO.sub.4" or "H.sub.xSO.sub.x" or "H.sub.nSO.sub.n" or "H.sub.xSO.sub.n" or "H.sub.nSO.sub.x") same ((Hydrogen adj peroxide) or (H2O2 or "H.sub.2O.sub.2" or "H.sub.xO.sub.x" or "H.sub.nO.sub.n" or "H.sub.xO.sub.n" or "H.sub.nO.sub.x")) same ((hydrofluoric adj acid) or HF))	US-PGPUB; USPAT; USOCR	OR	ON	2007/11/08 09:55